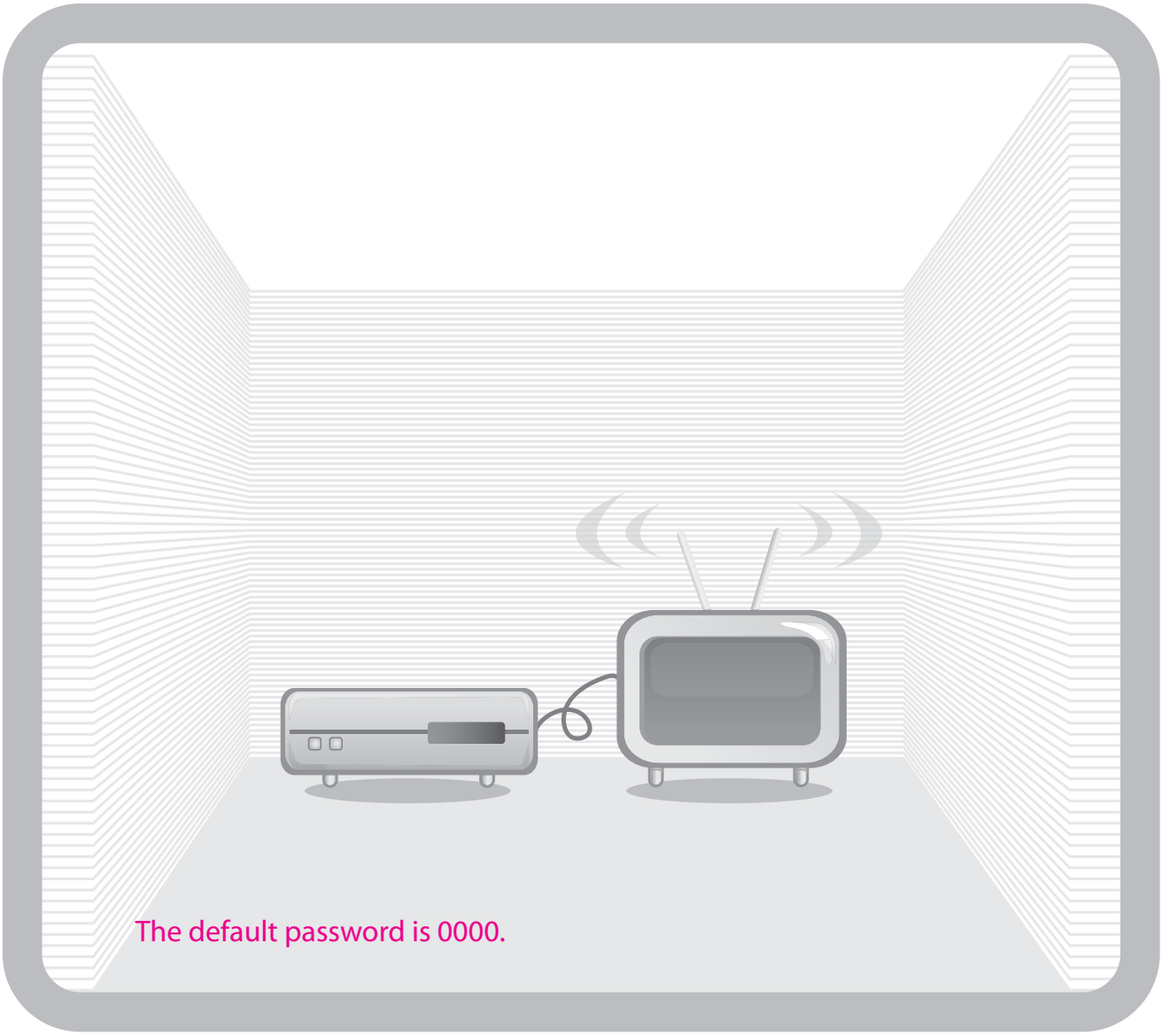
with freesat HD

freesat HD Digital Satellite Receiver



User's Manual

FOXSAT-HD

HUMAX
EASY DIGITAL

Notice

Thank you for purchasing a HUMAX product. Please read this user's manual carefully to be able to safely install, use and maintain the product at maximum performance. Keep this user's manual next to your product for future reference. The information in this user's manual is subject to change without notice.

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Warranty

The warranty does not cover parts which may become defective due to misuse of the information contained in this manual.

Trademarks

- Manufactured under license from Dolby Laboratories.
  'Dolby' and the double-D symbol are trademarks of Dolby Laboratories.

Warnings, Cautions and Notes

Throughout the whole manual, pay special attention to the following marks that indicate hazardous situations.

- **Warning**
  Indicates a hazardous situation which could result in serious injury.
- **Caution**
  Indicates a situation which could damage the equipment or other apparatus.
- **Note**
  Indicates additional information to make the user aware of possible problems and information of any importance to help understand, use and maintain the installation.

Meaning of Symbols

To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

This symbol indicates **dangerous voltage** inside the product that presents a risk of electric shock or personal injury.

This symbol indicates important instructions accompanying the product.

Notice

Instruction about the 'WEEE' Symbol

This product should not be disposed with other household wastes at the end of its working life. Please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. This will prevent possible harm to the environment or human health from uncontrolled waste disposal.

- **Domestic users:**
  Please contact either the retailer where you purchased this product or their local government office for details of where and how they can take this item for environmentally safe recycling.
- **Business users:**
  Contact your supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Safety Warning

This product has been manufactured to comply with international safety standards. Please read the following safety precautions carefully.

Safety Instructions and Precautions

1. MAINS SUPPLY

90-250V a.c., 50/60Hz

- Operate this product only from the type of power supply indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company.
- Disconnect the product from the mains before you start any maintenance or installation procedures.

2. OVERLOADING

- Do not overload a wall outlet, extension cord or adapter as this may result in electric fire or shock.

3. LIQUID

- The product should not be exposed to liquid of any kind. In addition, no objects filled with liquid should be placed on the apparatus.

4. CLEANING

- Disconnect the product from the wall outlet before cleaning.
- Use a light damp cloth (no solvents) to dust the product.

5. VENTILATION

- The slots on top of the product must be left uncovered to allow proper airflow into the unit.
- Do not stand the product on soft furnishings or carpets.
- Do not stack electronic equipments on top of the product.

6. ATTACHMENTS

- Do not use any unsupported attachments as these may be hazardous or cause damage to the product.

7. CONNECTION TO THE SATELLITE DISH LNB

- Disconnect the product from the mains before connecting or disconnecting the cable from the satellite dish. Failure to do so can damage the LNB.

8. CONNECTION TO THE TV

- Disconnect the product from the mains before connecting or disconnecting the cable from the TV. Failure to do so can damage the TV.

9. EARTHING

- The LNB cable must be earthed to the system earth for the satellite dish.

10. LOCATION

- Place the product indoors to avoid exposing it to lightning, rain or sun.
- Do not place it near a radiator or heat register.
- We recommend that the product has 10 cm clearance from any other appliances susceptible to electromagnetic influences, such as a TV or a VCR.
- Do not block the openings with any object, and do not place the product on a bed, sofa, rug, or other similar surface.
- If you place the product on a rack or a bookcase, ensure that there is adequate ventilation and that you have followed the manufacturer's instructions for mounting.
- Do not place the product on an unstable cart, stand, tripod, bracket, or table where it can fall.
- A falling product can cause serious injury to a child or adult, and serious damage to the appliance.

Safety Warning

11. LIGHTNING, STORM OR NOT IN USE

- Unplug the product from the wall outlet and disconnect the antenna during a thunderstorm or when left unattended and unused for long periods of time. This will prevent damage to the unit due to lightning and power-surges.

12. EXTRANEOUS OBJECTS

- Do not insert anything through the openings in the unit, where they can touch dangerous voltage points or damage parts.

13. REPLACEMENT OF PARTS

- When replacement of parts is required, be sure the service technician uses replacement parts specified by the manufacturer or those that have the same characteristics as the original part. Unauthorised substitution may result in additional damage to the unit.

Warning

1. To avoid damage of the power cord or plug;

- Do not modify or process the power cord or plug arbitrarily.
- Do not bend or twist the power cord.
- Make sure to disconnect the power cord holding the plug.
- Keep heating appliances as far as possible from the power cord in order to prevent the cover vinyl from melting.
- The mains plug, as a disconnection device, shall remain readily accessible by the user.

2. To avoid electrical shock;

- Do not open the main body.
- Do not insert metal or inflammable objects inside the product.
- Do not touch the power plug with wet hands.
- Disconnect the power cord in case of lightning.

3. To avoid damage of product;

- Do not use the product when it is out of order. If you continue to use the product when defective, serious damage can be caused to it. Make sure to contact your local retailer if the product is out of order.

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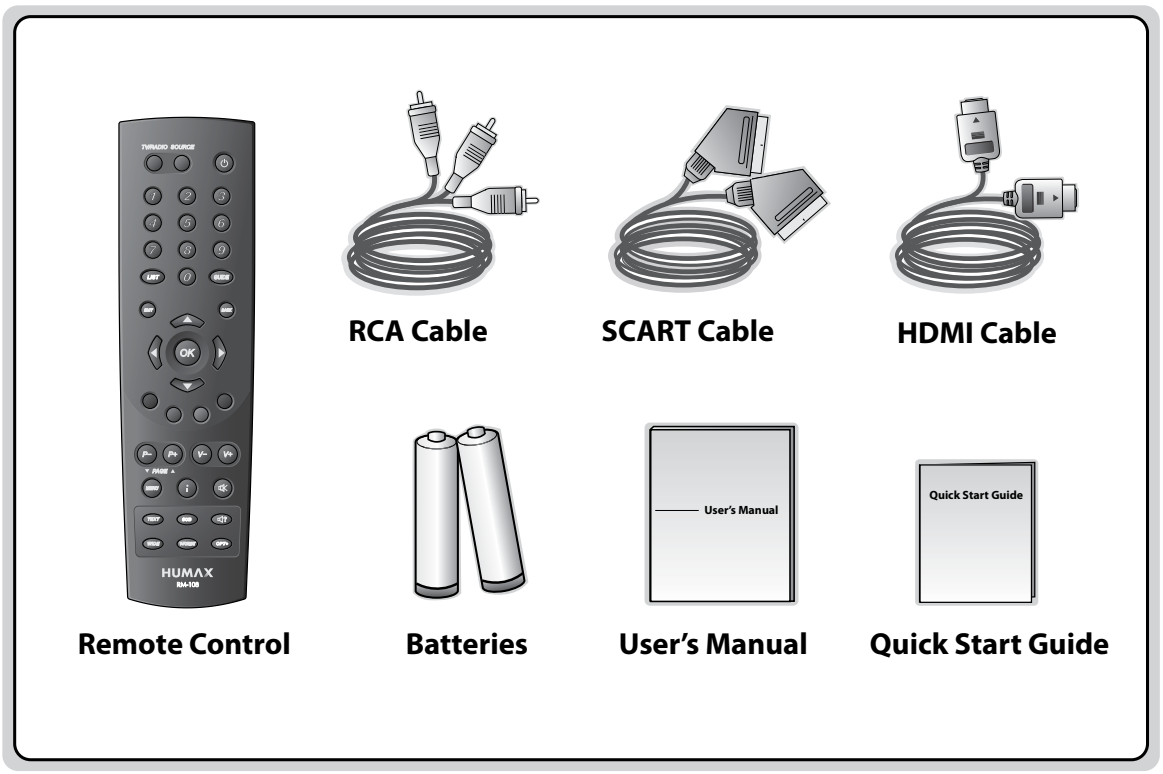
1. Before Using the Product

This chapter provides detail instructions on the product and its accessories.

1.1 Package Contents

Please check all package contents before using your product.

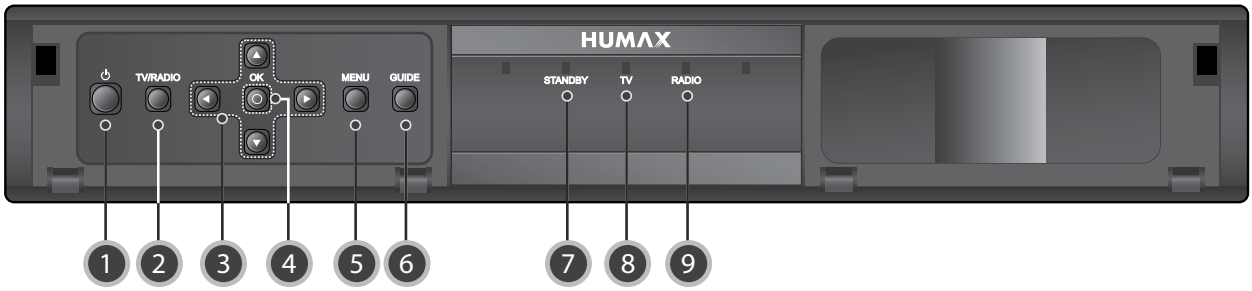


Note:

- Faults may occur if the remote control is left without battery for a long time. Always keep the battery inserted in the remote control.
- Package contents may vary according to area.

1. Before Using the Product

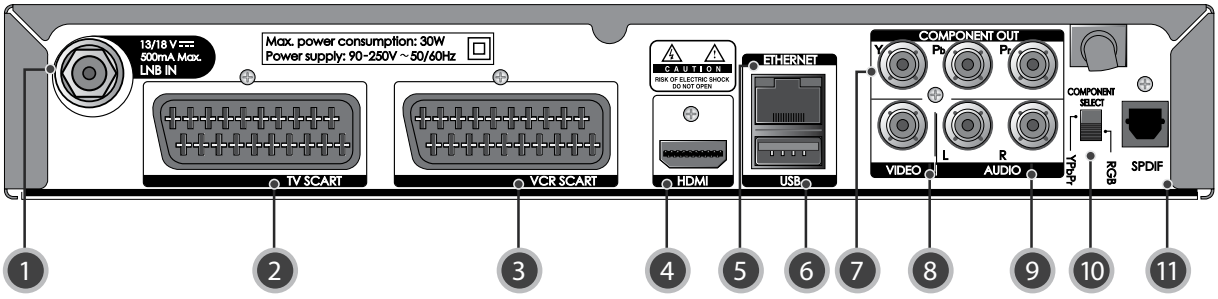
1.2 Front Panel



1. **STANDBY BUTTON**
   Switches between operation and standby modes.
2. **TV/RADIO BUTTON**
   Switches between TV and radio modes.
3. **ARROW BUTTONS**
   Changes the channel or moves the cursor up, down, left or right.
4. **OK**
   Selects a menu or confirms the selected operation.
5. **MENU**
   Displays the main menu.
6. **GUIDE**
   Displays the programme guide.
7. **STANDBY LED**
   Red light is emitted when the product is in standby mode.
8. **TV LED**
   Green light is emitted when the product is in TV mode.
9. **RADIO LED**
   Green light is emitted when the product is in radio mode.

Note: The front of the product is subject to change without notice.

1.3 Rear Panel



1. **LNB IN**
   Connects a satellite antenna cable.
2. **TV SCART**
   Connects to the TV using a TV SCART cable.
3. **VCR SCART**
   Connects to the VCR or DVD using a VCR SCART cable.
4. **HDMI**
   Connects to the TV using an HDMI cable.
5. **ETHERNET**
   Ethernet port (for future use).
6. **USB**
   Connects to the USB memory.
7. **COMPONENT(YPbPr)**
   Connects to the TV or VCR using a component cable.
8. **VIDEO**
   Connects to the TV or VCR using an RCA cable.
9. **AUDIO**
   Connects to the TV or VCR using an RCA cable.
10. **COMPONENT SELECT**
    Switch for changing video. (default: YPbPr)
11. **SPDIF**
    Connects to the audio system using an S/PDIF cable. (digital audio)

Note: The rear panel of the product is subject to change without notice.

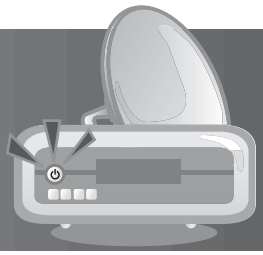
1. Before Using the Product

1.4 Remote Control

Note: The remote control of the product is subject to change without notice.

1. **SOURCE**
   Controls the output of TV SCART.
2. **TV/RADIO**
   Switches between TV and radio modes.
3. **NUMERIC(0-9) BUTTONS**
   Enters a TV/radio channel number or menu option number.
4. **LIST**
   Displays the channel list.
5. **EXIT**
   Exits all On-Screen Display (OSD) screens.
6. **ARROW BUTTONS**
   Navigates through the menu options.
7. **COLOUR BUTTONS(R/G/Y/B)**
   Select the colour keys for interactive applications.
8. **P-/P+ or PAGE▲/PAGE▼**
   Changes the channel or page.
9. **MENU**
   Displays the main menu.
10. **i (INFORMATION)**
    Displays the channel and programme information.
11. **TEXT**
    Enters digital text service.
12. **WIDE**
    Sets the display format.

1. Before Using the Product



13. STANDBY
Switches between operation and standby modes.

14. GUIDE
Displays the programme guide.

15. BACK
Closes and returns to the previous menu and screen.

16. OK
Selects a menu or confirms the selected operation.

17. V-/V+
Adjusts the audio volume.

18. MUTE
Mutes or unmutes the audio temporarily.

19. SUB
Displays the subtitle language list.

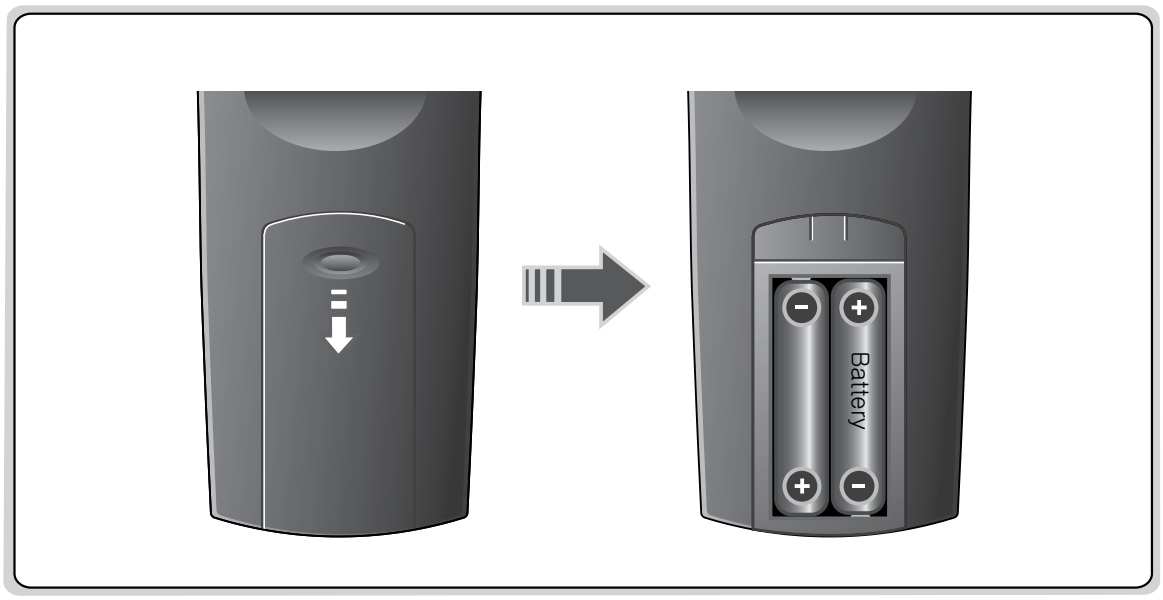
20. AUDIO
Displays the audio list.

21. OPT+
Displays the channels attributes while watching a programme.

22. V-FORMAT
Changes the resolution of video.

1.5 Remote Control Batteries

1. Press down the top of the battery cover and slide the cover off.
2. Insert the new batteries. Make sure the plus (+) ends meet the plus markings on the battery case.
3. Slide the cover back into place.



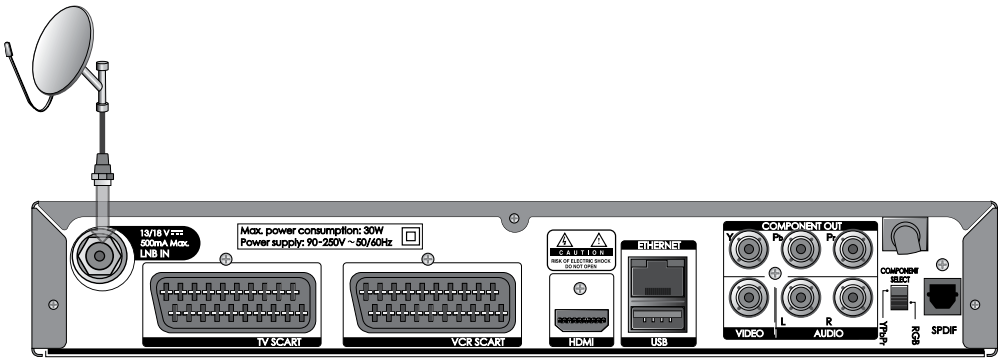
2. Connections

This chapter describes how to connect your product to the TV with the particular equipments for gaining optimum signal quality. The product provides various interfaces to connect to the TV, VCR or other devices. Select the most appropriate procedure depending on the equipment you have.

Note: If you encounter any problems setting up your product, please contact your local retailer.

2.1 Connecting the Antenna

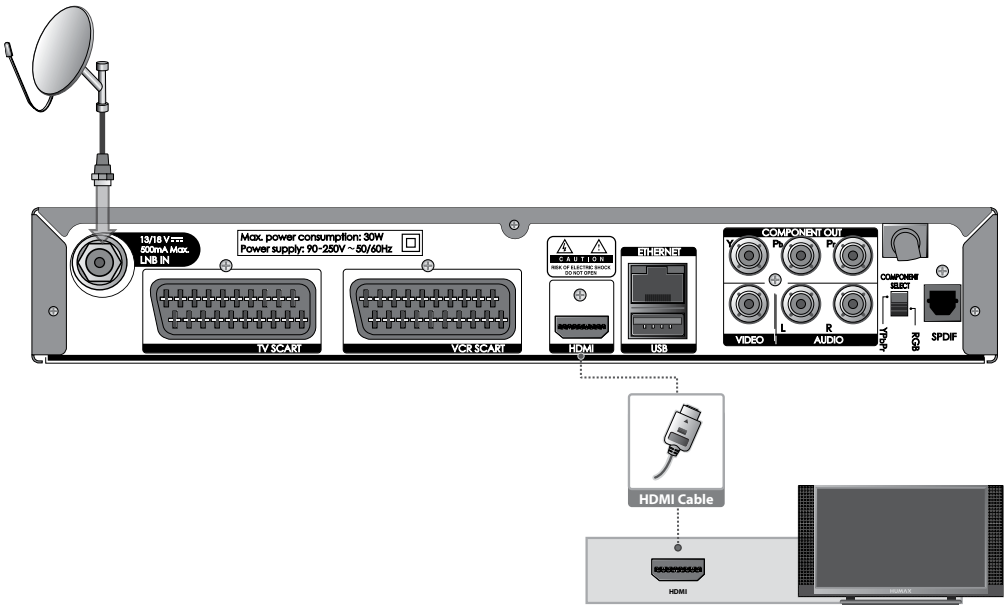
Connect the antenna cable to LNB IN.



2.2 Connecting the TV and VCR

1. Using HDMI Cable

The HDMI connection, a special all-digital interface that provides the highest picture quality, is suitable for Digital TV. If the TV has a HDMI input, connect the product & TV using a HDMI cable as follows.

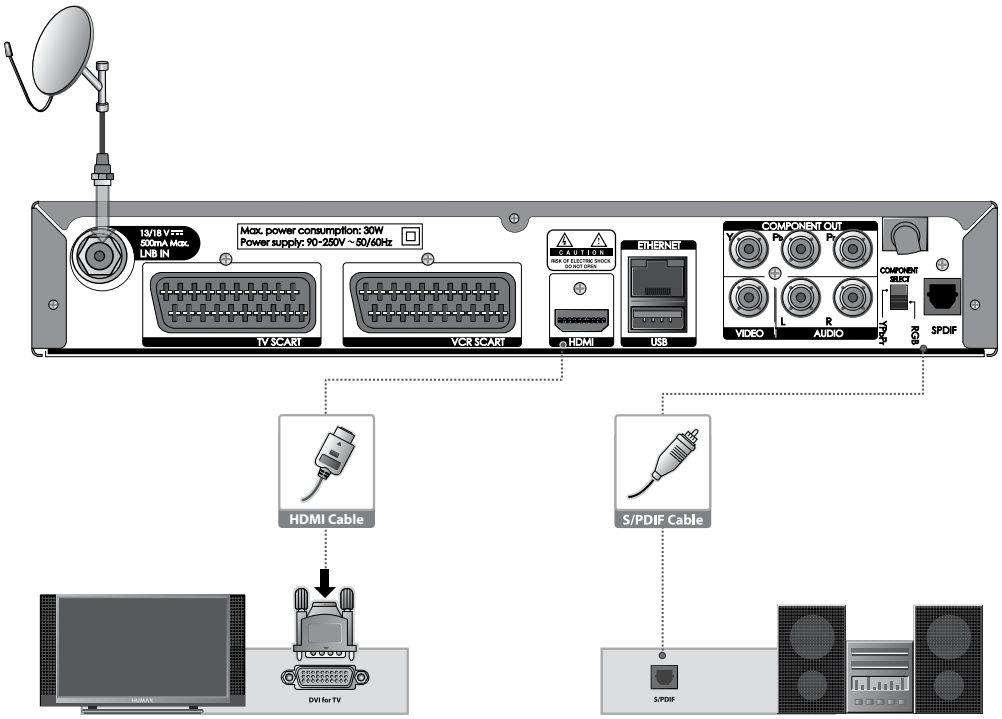


2. Using DVI Connector

The DVI connection using an HDMI to DVI converter is suitable for Digital TV. If the TV has the DVI input connector only, connect the product to the TV with an HDMI cable using an HDMI to DVI converter as follows.

When equipped with an A/V receiver,

1. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
2. Connect the DVI converter to the TV.
3. Connect the product and the Dolby Digital decoder using an S/PDIF cable.



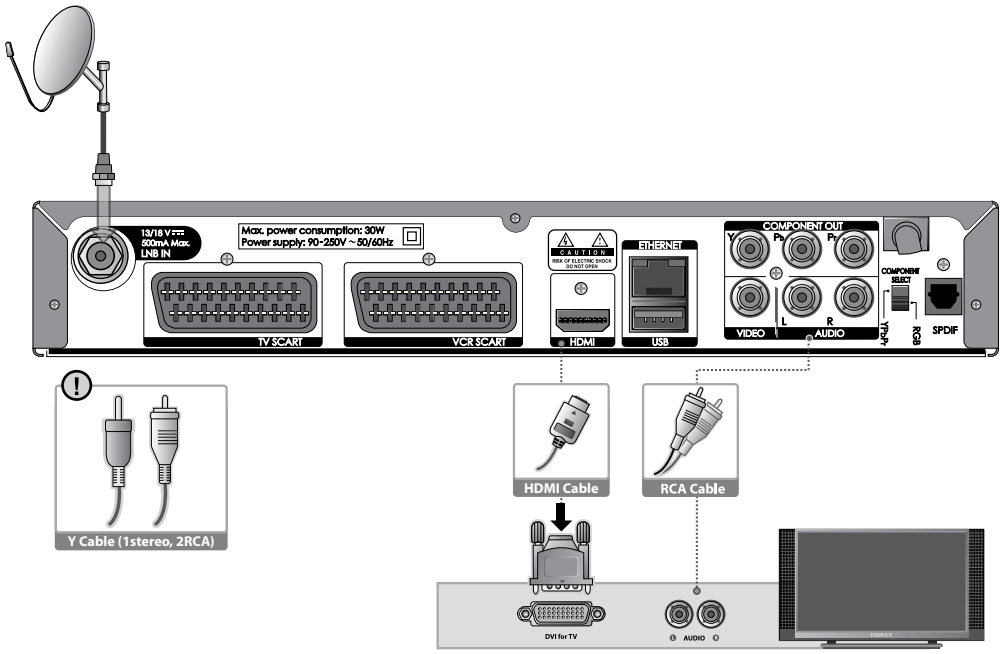
2. Connections

When there is no A/V receiver available,

1. Connect the product and the TV using an RCA cable.
2. Connect one end of the HDMI cable to the HDMI input on the product and the other end to the HDMI to DVI converter.
3. Connect the DVI converter to the TV.

Note: You can also connect the product to the TV using the ***3.5 Stereo Jack Cable to 2 RCA Y Cable***.

Caution: DO NOT CONNECT TO HEAD PHONE CONNECTOR ON TV!



2. Connections

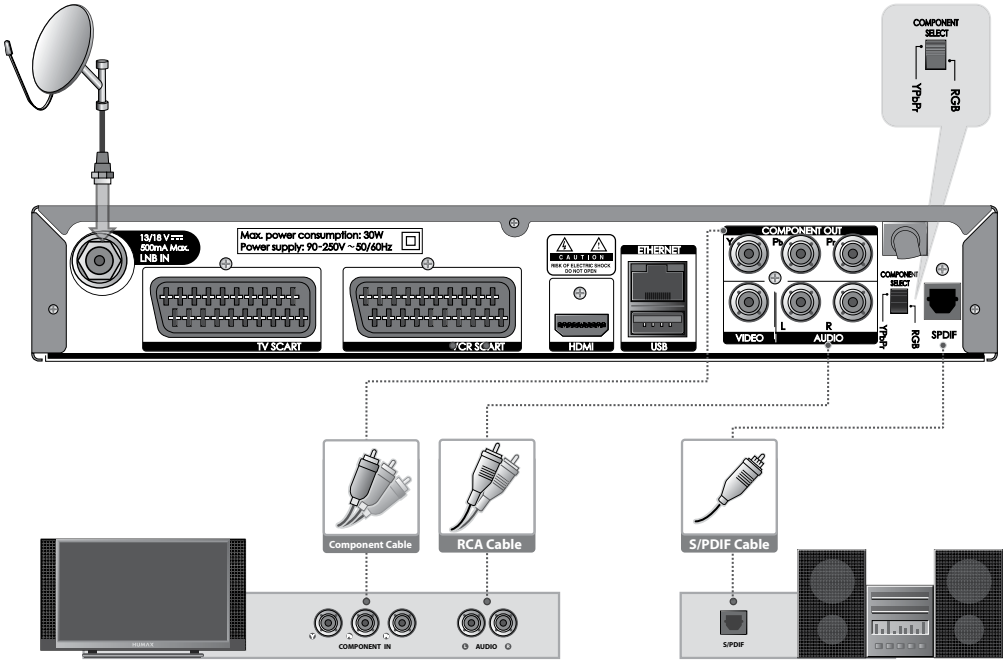
3. Using Component Cable

The component connection is suitable for Digital TV. Connect the product and the TV using a component cable as follows.

You can either:

- 1-1 Connect the product and the TV using an RCA cable (Audio L/R).
- 1-2 Connect the product and the Dolby Digital decoder using an S/PDIF cable.

Note: The **Component Select** switch should be on YPbPr when using the component cable.



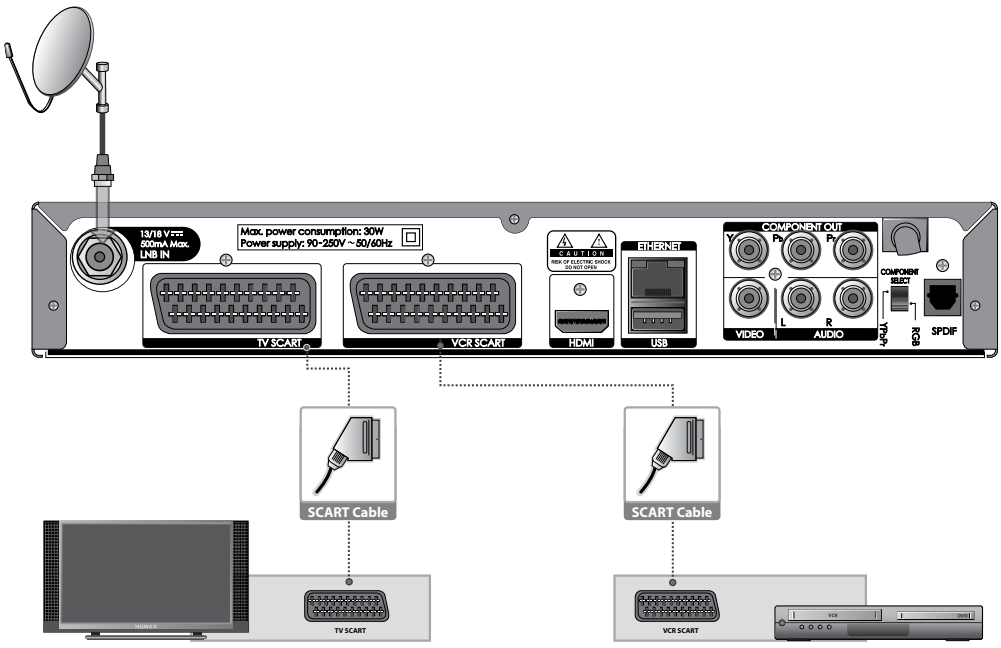
2. Connections

4. Using SCART Cable

A SCART cable connection is recommended for analogue TV or VCR.

1. Connect the product and the TV using a SCART cable.
2. Connect the product and the VCR using a SCART cable.

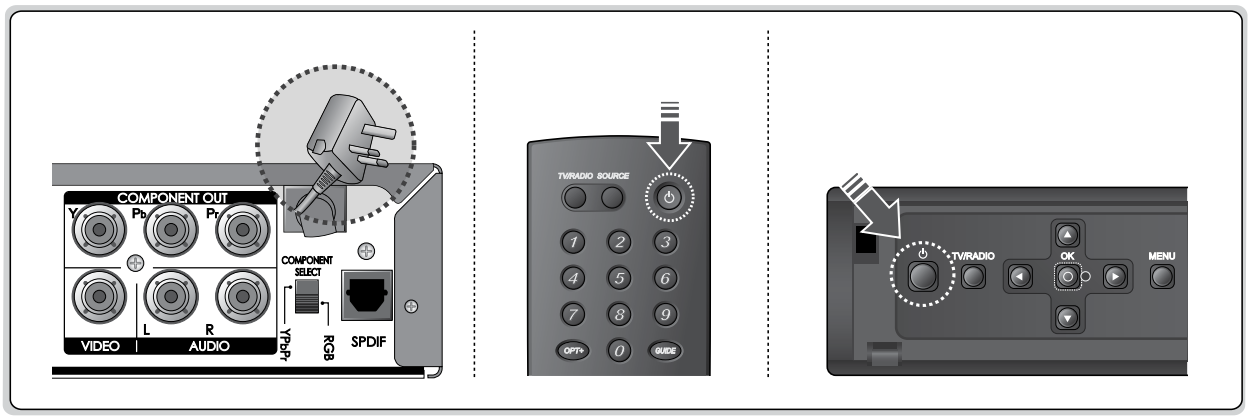
Note: The **Component Select** switch should be on RGB when using the SCART cable.



2. Connections

2.3 Powering On

1. Connect the power cord of the product to a wall outlet.
2. Power on by pressing the **STANDBY** button of the remote control or the **STANDBY** button at the front of the product.



3. First Installation

When powering on your product for the first time after purchase, the first installation will operate automatically.

Tip:
- The default password is **0000**.
- If you have forgotten your password, please contact your local retailer.

3.1 User Settings

User Settings allows you to set the language, screen ratio, display format and resolution.

Select the value for ***Preferred Language, Picture Format*** and ***Resolution***.

Select ***Next*** and press the **OK** button.

Note: If the product is connected to the TV using an HDMI cable, ***Original*** will not be displayed.

3.2 freesat detection

1. Confirm the antenna cable is connected and press the **OK** button to find freesat.
2. Please wait until freesat detection is complete.
3. When freesat is detected, press the **OK** button to go to the next step. When there is no freesat, check your satellite antenna cable connection.

Warning: To prevent electric shock, always POWER OFF all devices during setting up the connection.

2 freesat detection
Confirm the antenna cable is connected and press <OK> to continue
Warning : To prevent electric shock, always POWER OFF all devices during setting up the connection.
Back
Detection
Select

3. First Installation

3.3 Postcode

Enter your full postcode (including a space) using the **NUMERIC(0-9)** button on the remote control.

To use on-screen keyboard, press the **OPT+** button. Press the **1** button to enter a space.

3 Postcode
Enter your full postcode (including a space) using the numeric keys on the remote control.
To use on-screen keyboard press OPT+
Press 1 to enter a space.
Back
Next
OPT+ Keyboard

3.4 Search Channels

Search Channels will activate and the results will appear.

To stop the channel search, select ***Stop*** and press the **OK** button. Select ***Save*** and press the **OK** button to go to the next step.

3.5 Result

After all setting is complete, you can view the result screen.

Select ***Finish*** and press the **OK** button to complete the first installation.

3.6 Installation Checklist

Before using the product, please make sure that you have completed the following steps.

Step	Page	Done?
Is the antenna connected correctly?	GB13	
Is the product connected to your TV?	GB13	
Is the power cord plugged in the wall outlet?	GB18	
Is the product in operation mode (not Standby mode)?	GB18	
Have you performed channel search in the first installation?	GB19	

Note: If you exit the first installation without fully completing the channel searching procedure, you may not have all of the channels available. In this case, you can use the setup menu to search for more channels.

4. Basic Operation

This chapter describes the basic functions the product provides such as switching channel, volume control and other common features.

4.1 Switching Channel

You can switch the current channel by pressing the **P-/P+** button or entering the channel number directly using the **NUMERIC(0-9)** buttons. Press the **TV/RADIO** button to switch between TV channels and radio channels.

Note: You can switch channels using the channel list or TV guide. To return to the previous channel, press the **BACK** button.

4.2 Volume Control

You can adjust the audio volume. Press the **V-/V+** button to adjust the audio volume. Press the **MUTE** button to stop the audio temporarily.

Note: The mute function remains set while you switch channels.

4.3 Resolution

You can set the resolution of the screen. Press the **V-FORMAT** button while watching a programme. The current resolution will be displayed.
Each time you press the **V-FORMAT** button, the resolution changes in the following sequence:
576i→576p→720p→1080i→Original.

Note: If the product is connected to the TV using an HDMI cable, ***Original*** will not be displayed.

4.4 Wide

You can set the display format.

Press the **WIDE** button while watching a programme to change the display format.
Each time you press the **WIDE** button, the display format changes.

Note: For more information about display format, refer to ***7.1.6 Picture Format***.

4.5 Audio

You can select the language you prefer in ***Audio*** if the current programme is available in multiple audio languages.

1. Press the **AUDIO** button.
2. Select the audio language you prefer.
3. Select audio direction (left, right, stereo) using the ◀/▶ button.
4. Press the **EXIT** button to close.

Note: If the programme is broadcast in Dolby Digital, you cannot set the audio direction.

4.6 Subtitle

can select the language for the subtitle if the programme provides subtitle information.

1. Press the **SUB** button.
2. Select the required subtitle language and press the **OK** button. The subtitle will be displayed in the selected language at the bottom of the screen.
3. Select ***Off*** from the subtitle language list to hide the subtitle from the screen.

Note: When there is no subtitle available, ***Off*** does not appear.

4.7 Text and Interactive Services

If your chosen channel has digital teletext features, you can access them. Teletext services often load automatically shortly after the digital teletext window is displayed. In which case, simply follow the on screen instructions(press color buttons).

1. Press the **TEXT** button to access digital teletext.
2. Press the **TEXT** button again to return to normal viewing.
3. Press the **CH+/CH-** button to exit this service.

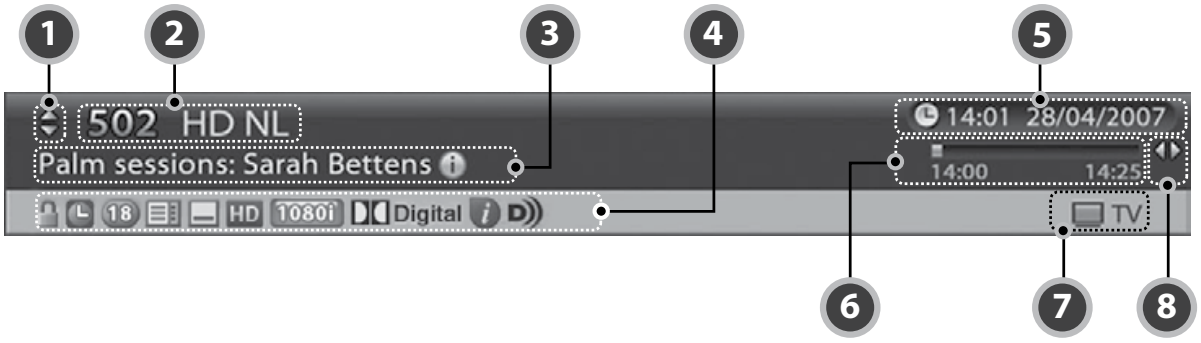
4.8 Programme Information (i-plate)

The i-plate is always displayed for a certain period of time whenever you switch channels. You can view the programme information by pressing the **i** button while watching a programme. Press the **EXIT** button to hide the i-plate.

After switching to a channel, press the ◄/► button to display navigation mode.
Press the ◄/► button to view the previous/next programme information.
Press the ▲/▼ button to view the programme information of other channels.

1. General Information

The general information is displayed on the screen as the following.



1. Next/previous channel
2. Channel number and name
3. Programme name
4. Icons

	Displayed only when the channel is a locked channel.
	Displayed only if the programme is reserved for watching.
18	Represents parental level. Indicates the minimum level of age for viewing the programme.
	Displayed only when there is any teletext information.
	Displayed only when subtitle information is available.
HD	Displayed only when the channel provides HD programmes.
1080i	Displays the resolution of the current programme.
Digital	Displayed only when the programme is broadcast in Dolby Digital.
D	Displayed only when audio description is available.
i	Displayed only when the interactive service is available.
G	Displayed only when there is any guidance information.

5. Current time & date
6. Programme broadcasting time and progress bar: Displays programme playing time and progress bar.
7. Group name: Displays the group the channel belongs to.
8. Previous/Next programme information: Displayed if previous/next programme information is provided. Press the ◄/► button to display previous/next programme information.

Note: If there is no programme information available, programme information is not displayed.

2. Detailed Programme Information

You can see the detailed information about the current programme.

Press the **i** button when the i-plate is displayed to view detailed information. Press the **i** button once more to hide the i-plate.

Note: If the detailed programme information is over one page, use the ▲/▼ button to move to the previous or next page.

4.9 Option List

You can view and confirm detailed information about the current channel and change the information if necessary.

Tip:	The default password is **0000**.

1. Press the **OPT+** button.
2. To add the channel to the favourite group, select ***Favourite***. Select the group using the ▲/▼ button and press the **OK** button.
3. To lock the channel, select ***Lock*** and press the **OK** button.
4. To delete the channel, select ***Delete*** and press the **OK** button. A popup will appear. Select ***Yes*** and press the **OK** button.
5. To rename the channel in the non-freesat channel mode, select ***Rename*** and press the **OK** button. Enter the name directly using the keyboard on the screen. Press the **YELLOW** button to complete.

Note: In the non-freesat channel mode, you cannot add the channel to the favourite group.

5. Channel List

This chapter will help you manipulate the channel list. You can display the channel list by pressing the **LIST** button while watching a programme.

Four types of channel lists are provided for quick and easy channel search.

My TV (RED)	The list of all TV channels. The list of all radio channels. The list of the recently viewed channels.
Favourite (GREEN)	The list of the favourite channels in five groups.
HD TV (YELLOW)	The list of all HD TV channels.
Genre (BLUE)	The list of channels including the sports, drama, movie and other genres.

Note:
- Press the **EXIT** button to exit the channel list.
- The sub-groups of favourite channel list exist only after configuration.
- Each time you press the **i** button, the sorting order of the channels change in the following sequence: by channel number, by channel name.

5.1 My TV List

My TV List is the list of all channels available including TV, radio and recent channels.

1. Press the **LIST** button while watching a programme to display the channel list.
2. Press the **RED** button while the channel list is displayed.
3. Select the channel you wish to view and press the **OK** button. You can also enter the channel number using the **NUMERIC(0-9)** buttons.
4. Press the **RED** button again and select a sub group using the ◄/► button.
5. Select a channel and press the **OPT+** button.
   To add the channel to the favourite group, select ***Favourite***. Select the group using the ◄/► button and press the **OK** button.
   To lock the channel, select ***Lock*** and press the **OK** button.
   To delete the channel, select ***Delete*** and press the **OK** button. A popup will appear. Select ***Yes*** and press the **OK** button.

Note: You can switch between TV and radio by simply pressing the **TV/RADIO** button.

5. Channel List

5.2 Favourite List

Favourite List is the list of the favourite channels you can select yourself from the entire channel list. There are five favourite groups in total.

1. Press the **LIST** button while watching a programme.
2. Press the **GREEN** button to display the list of favourite groups.
3. Press the **GREEN** button again and select a sub group using the ◄/► button.

5.3 HD TV List

HD TV List is the list of all HD TV channels.

1. Press the **LIST** button while watching a programme.
2. Press the **YELLOW** button to display the HD TV list.

5. Channel List

5.4 Genre List

Genre List is the list of channels including the sports, drama, movie and other genres.

1. Press the **LIST** button while watching a programme.
2. Press the **BLUE** button to display the genre list.
3. Press the **BLUE** button again and select a sub group using the ▲/▼ button.

5.5 Non-freesat Channel List

Four types of channel lists are provided for quick and easy channel search in the non-freesat channel list.

My TV (RED)	The list of all TV channels. The list of all radio channels. The list of HD TV channels. The list of the recently viewed channels.
Favourite (GREEN)	The list of the most viewed channels.
Satellite (YELLOW)	The lists of channels classified by satellites.
Scramble (BLUE)	The lists of channels classified by CAS types.

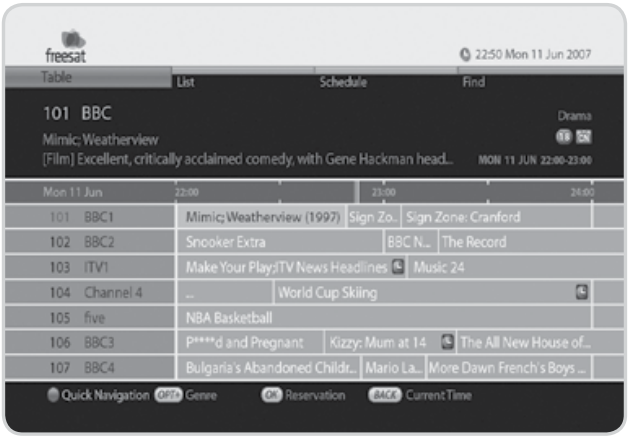
6. TV Guide

The ***TV Guide*** displays the programme information of each channel, in time and date order. You can customize your own programme guide to list the channels or programmes of interest to you and schedule your viewing using the programme information.

Note: Press the **GUIDE** or **EXIT** button to exit the TV guide screen.

6.1 Table Guide

You can view the programme information of all channels in time and date order.



1. Press the **GUIDE** button.
2. Select the channel genre using the ◄/► button and select the sub channel genre using the ▲/▼ button.
3. Move to the previous/next programme within the same channel using the ◄/► button.
4. Move to another channel using the ▲/▼ button. If the contents are more than one page, use the **P-/P+** button to skip to the next page. Enter the number of the channel you wish to move using the **NUMERIC(0-9**) buttons.
5. Select the programme you want and press the **OK** button to view the programme.
6. Press the **RED** button to enter to the quick navigation mode. Jump back/ahead two hours using the ◄/► button. Move to the previous/next day using the ▲/▼ button.
7. Press the **OPT+** button to change the channel genre. Select the channel genre using the ◄/► button and select the sub channel genre using the ▲/▼ button.
8. You can reserve it if it is a future programme. Select a future programme and press the **OK** button. Select ***Yes*** and press the **OK** button. Select a reserved programme and press the **OK** button to cancel the reservation.
9. Press the **BACK** button to return to the current time.

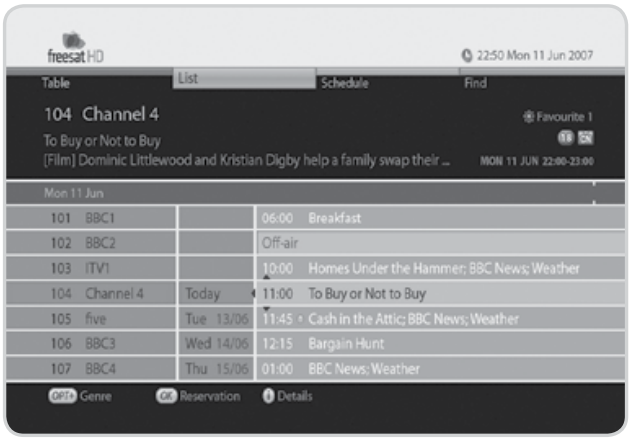
Note:

- Press the **i** button to view the programme information.
- Press the **TV/RADIO** button to switch to TV or radio.
- In the non-freesat mode, you cannot select the channel genre. Select the group using the **OPT+** button.
- You cannot reserve the programme in the non-freesat mode.

6. TV Guide

6.2 List Guide

1. Press the **GUIDE** button.
2. Select the channel genre using the ◄/► button and select the sub channel genre using the ▲/▼ button.
3. Press the **GREEN** button.
4. You can view the programme information for approximately a week. The features are similar as in grid guide.



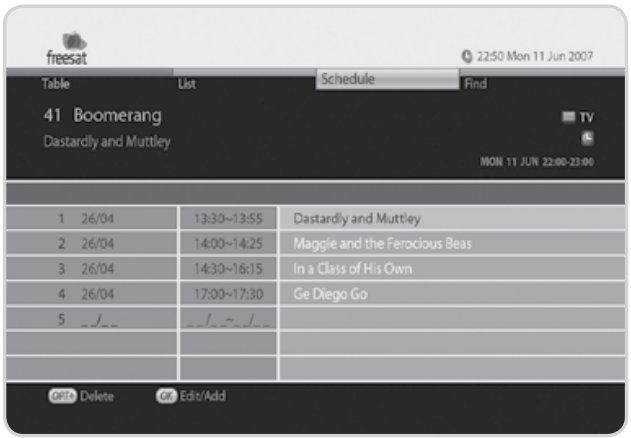
6.3 Schedule

Schedule displays the list of the programmes reserved. You can modify, delete or make new reservations.

1. Press the **GUIDE** button.
2. Press the **YELLOW** button to display the schedule of reservations.
3. Select a reservation and press the **OPT+** button to delete the reservation.

Note:

- Press the **BACK** button to sort the list in time or alphabetical order.
- You cannot reserve the programme in the non-freesat mode.



1. Editing Reservations

1. Select a reservation you want to edit and press the **OK** button. The reservation popup will appear.
2. Select ***Channel*** and press the **OK** button to display the channel list. Select the channel.
3. Select ***Date*** and press the **OK** button to view the calendar. Select the date.
4. Select ***Start Time*** or ***End Time*** and enter the time using the **NUMERIC(0-9)** buttons.
5. Select ***Repeat*** and change the repeat frequency using the ◄/► button.
6. Select ***OK*** and press the **OK** button.

2. New Reservation

1. Select a blank space and press the **OK** button.
2. The reservation popup will appear. Enter the channel number, date, start/end time and repeat frequency and then press the **OK** button.

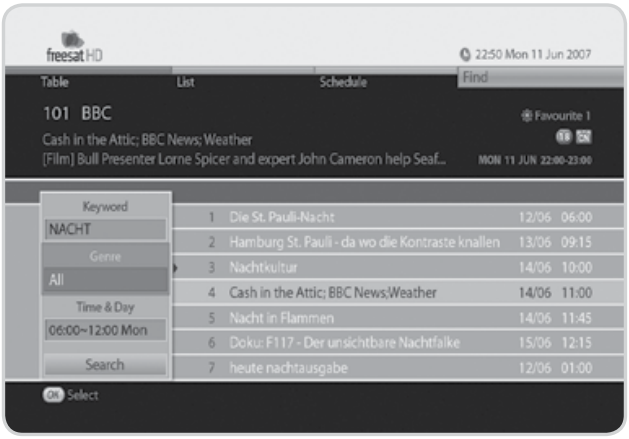
Note:
- Reservations for deleted channels or past programmes are automatically deleted.
- In case the channel number has changed, reservation has to be done again.

6.4 Find

Find enables you to find the programme you want by entering the keyword, genre, time and day of the programme.

1. Press the **GUIDE** button.
2. Press the **BLUE** button to find programme.
3. Enter the keyword, genre, time & day of the programme and select ***Search*** and then press the **OK** button.
4. The search result of the entered values will appear.
5. To reserve a programme, select a future programme and press the **OK** button.

Note: Press the **OPT+** button to display seven of the most recent values that have been entered.



1. Search by Keyword

1. Press the **OK** button while the cursor is on ***Keyword***.
2. A keyboard will appear. Enter the keyword.
3. Select ***Language*** and choose the language of the keyword.
4. Select ***SMS*** to switch to SMS keyboard.
5. Press the **YELLOW** button to complete.

2. Search by Genre

1. Press the **OK** button while the cursor is on ***Genre***.
2. The list of genres will appear. Select genres and press the **OK** button. You can select up to two genres.

3. Search by Time and Day

1. Press the **OK** button while the cursor is on ***Time & Day***.
2. The time & day popup will appear. Select the time and day using the **OK** or ◄/► button.
3. Select ***OK*** and press the **OK** button.

7. Settings

In this chapter you can set TV setup, language, time, parental control and other configuration items to keep limitations where you want them for the viewers.

Note: Press the **EXIT** button to save the changes and return to the previous menu. Press the **MENU** button to exit the menu screen.

7.1 TV Setup

You can configure the audio and video output settings.

1. Press the **MENU** button.
2. Select ***Settings*** using the ▲/▼ button and press the **OK** button.
3. Select ***TV Setup*** using the ▲/▼ button and press the **OK** button.

1. TV SCART

You can select the TV SCART output option.

1. Select ***TV SCART*** and press the **OK** button.
2. Select among ***CVBS, S-Video*** and ***RGB*** and press the **OK** button.

Note: You can select ***RGB*** only when the Component Select switch at the rear is on ***RGB***.

7. Settings

2. VCR SCART

You can select the VCR SCART output option.

1. Select ***VCR SCART***.
2. Select ***CVBS*** or ***S-Video*** using the **OK** or ◀/▶ button.

3. Audio

You can select the audio output option.

1. Select ***Audio***.
2. Select ***Stereo*** or ***Mono*** using the **OK** or ◀/▶ button.

4. Dolby Digital

You can set Dolby Digital automatically. If you select ***On***, Dolby Digital audio will be output via S/PDIF.

1. Select ***Dolby Digital***.
2. Select ***On*** or ***Off*** using the **OK** or ◀/▶ button.

5. Lip-Sync

You can adjust the sound difference of audio and video.

1. Select ***Lip-Sync*** and press the **OK** or ▶ button.
2. Adjust the sync using the ◀/▶ button.
3. Press the **BACK** button to complete.

Note: Lip-Sync is applied to all channels when once adjusted.

6. Picture Format

You can select the picture format.

1. Select ***Picture Format*** and press the **OK** button.
2. Select among ***Widescreen***, ***Auto***, ***16:9 Letterbox***, ***14:9 Letterbox*** and ***Centre Cut Out*** and press the **OK** button.

7.2 Language

Language enables you to set the basic language and subtitle options.

1. Press the **MENU** button.
2. Select ***Settings*** using the ▲/▼ button and press the **OK** button.
3. Select ***Language*** using the ▲/▼ button and press the **OK** button.

1. Preferred Language

Preferred Language allows you to choose from the given language options and set the language.

1. Select ***Preferred Language*** and press the **OK** button.
2. Select the language you want and press the **OK** button.

2. Subtitle Display

Subtitle Display allows you to display the subtitle automatically. This service is provided when subtitles are available.

1. Select ***Subtitle Display***.
2. Select ***Enable*** or ***Disable*** using the **OK** or ◄/► button.

3. Subtitle Font

Subtitle Font enables you to select the font of the subtitle.

1. Select ***Subtitle Font***.
2. Select ***Variable*** or ***Fixed*** using the **OK** or ◄/► button.

Variable	Uses the horizontally variable subtitle font of the on-screen display.
Fixed	Uses the fixed subtitle font as in TEXT.

4. Audio Description

Audio description allows you to access content that is not otherwise accessible simply by listening to the audio. In audio description, narrators typically describe actions, gestures, scene changes, and other visual information.

1. Select ***Audio Description***.
2. Select ***Enable*** or ***Disable*** using the **OK** or ◄/► button.

7.3 Time

Time allows you to set the time you want to turn the product on or off.

1. Press the **MENU** button.
2. Select ***Settings*** using the ▲/▼ button and press the **OK** button.
3. Select ***Time*** using the ▲/▼ button and press the **OK** button.

1. Power ON

You can set the time the product turns on automatically.

1. Select ***Power ON*** and press the ► button.
2. Enter the powering on time using the **NUMERIC(0-9)** buttons or select ***Disable*** using the ◄/► button.

2. Power On Channel

You can select the channel to watch when the product turns on at the preset wakeup time.

1. Select ***Power On Channel*** and press the **OK** button to display the channel list.
2. Select the channel and press the **OK** button.

3. Power OFF

You can select the time the product turns off automatically.

1. Select ***Power OFF*** and press the ► button.
2. Enter the powering off time using the **NUMERIC(0-9)** buttons or select ***Disable*** using the ◄/► button.

7.4 Parental Control

Parental Control allows you to set rating limits for each programme according to the age of the viewer or change your previous password. You can also lock the changes you have made using installation lock.

Tip:	The default password is **0000**.

1. Press the **MENU** button.
2. Select ***Settings*** using the ▲/▼ button and press the **OK** button.
3. Select ***Parental Control*** using the ▲/▼ button and press the **OK** button.
4. You will be prompted to enter your password. Enter the password using the **NUMERIC(0-9)** buttons.

1. Age Limit

Age Limit enables you to place certain restrictions on the viewers by setting age limits.

1. Select ***Age Limit*** and press the **OK** button.
2. Select the age limit you wish to set.

Note: You must enter your password to watch programmes blocked by the age restriction.

2. Change Password

Change Password allows you to change the current password.

1. Select ***Change Password*** and press the **OK** button.
2. Enter the password in ***New Password*** using the **NUMERIC(0-9)** buttons.
3. Enter the password again in ***Verify Password*** to confirm.

3. Installation Lock

Installation Lock allows you to block access to the installation menu settings you have previously made.

1. Select ***Installation Lock***.
2. Select ***Enable*** or ***Disable*** using the **OK** or ◄/► button.

7.5 Other

You can configure other settings such as info display time, OSD transparency, power saving in standby and automatic standby.

1. Press the **MENU** button.
2. Select ***Settings*** using the ▲/▼ button and press the **OK** button.
3. Select ***Other*** using the ▲/▼ button and press the **OK** button.

1. Info Display Time

You can set the automatic display time of the information box when the channel is switched.

1. Select ***Info Display Time*** and press the **OK** button.
2. Select a value between ***Disable, 1~20*** seconds and press the **OK** button.

Note: When set to ***Disable***, the i-plate will not be displayed when you switch the channel.

2. OSD Transparency

You can set the transparency of the On-Screen Display.

1. Select ***OSD Transparency*** and press the **OK** button.
2. Select among ***Disable, 25, 50*** and ***75*** and press the **OK** button.

Disable	Fully opaque screen
25, 50, 75	The bigger the number, the more transparent the screen.

3. Power Saving in Standby

You can select whether the product switches to power saving mode in standby.

1. Select ***Power Saving in Standby***.
2. Select ***On*** or ***Off*** using the **OK** or ◄/► button.

4. Automatic Standby

The product automatically switches to the standby mode after the specified period of inactivity to help reduce the amount of electricity it uses when ***Automatic Standby*** is set as ***Enable***.

1. Select ***Automatic Standby***.
2. Select ***Enable*** or ***Disable*** using the **OK** or ◄/► button.

7.6 STB Mode

1. Press the **MENU** button.
2. Select ***Settings*** using the ▲/▼ button and press the **OK** button.
3. Select ***STB Mode*** using the ▲/▼ button and press the **OK** or ► button to select ***freesat*** or ***Non-freesat***.

Note: ***STB Mode*** is activated only in the non-freesat mode.

8. Edit Channels

In this chapter you can edit all channels in the channel list or make changes to the favourite lists of the channels you have chosen.

Note:
- Press the **EXIT** button to save the changes and return to the previous menu. Press the **MENU** button to exit the menu screen.
- Press the **TV/RADIO** button to move to TV or radio channel list directly.

8.1 Edit Channel List

Edit Channels List enables you to delete, select and lock/unlock the channels in the edit channel list conveniently.

1. Press the **MENU** button.
2. Select ***Edit Channels*** using the ▲/▼ button and press the **OK** button.
3. Select ***Edit Channel List*** using the▲/▼ button and press the **OK** button.

Note: You can move and rename the channels in the non-freesat channel mode.

1. Deleting Channels

1. Select the channels you want to delete and press the **OK** button. You can select more than one channel.
2. Press the **RED** button to delete the chosen channels.

8. Edit Channels

2. Locking/Unlocking Channels

Tip:	The default password is **0000**.

1. Select the channel you want to lock and press the **OK** button.
2. Press the **GREEN** button.
3. Select ***Lock*** and press the **OK** button.

Note:

- When all selected channels are locked, ***Lock*** is switched into Unlock. When you press ***Unlock***, the locked channel is switched into an unlocked channel.
- To watch locked channels, you must enter the password using the **NUMERIC(0-9)** buttons.

3. Selecting a Channel Group

1. Press the **YELLOW** button to display the list of groups.
2. Select the group you want and press the **OK** button.

4. Select All/Release All

1. Press the **BLUE** button.
2. Select ***Select All*** and press the **OK** button.
3. To release one or more channels from select all, press the **OK** button while the cursor is on the selected channel.

8.2 Edit Favourite List

You can add or remove channels from the favourite groups, move favourite channels and rename favourite groups.

1. Press the **MENU** button.
2. Select ***Edit Channels*** using the ▲/▼ button and press the **OK** button.
3. Select ***Edit Favourit List*** using the ▲/▼ button and press the **OK** button.

Note: ***Edit Favourite List*** is deactivated in the non-freesat mode.

1. Adding/Removing Channels

1. Select the channels you want to add to the favourite channel list and press the **OK** button.
2. Press the **RED** button to add the channels to the favourite list you have chosen.
3. To remove channels from the favourite list, select the channels from the list and press the **RED** button.

Note: When the cursor is on the left column, the red button is marked ***Add***; when the cursor moves to the right column, it becomes ***Remove***.

2. Selecting Favourite Groups

1. Press the **GREEN** button to display the list of groups.
2. Select the favourite group you want and press the **OK** button.

3. Select All/Release All

1. Press the **YELLOW** button to select all channels in the favourite list.
2. To release all channels, press the **YELLOW** button again.

4. Renaming Favourite Groups

1. Select the favourite group you want to rename and press the **OK** button.
2. Press the **BLUE** button.
3. Select ***Rename Group*** and press the **OK** button.
4. A keyboard will appear. Enter the name of the favourite group using the keyboard.
5. Press the **YELLOW** button to complete.

Note: The **YELLOW** and **BLUE** buttons become activated only when the cursor is placed on the right column.

8. Edit Channels

5. Moving Favourite Channels

1. Select the favourite channels to move within the favourite channel list and press the **OK** button.
2. Press the **BLUE** button.
3. Select ***Move*** and press the **OK** button.
4. Move the cursor to the destination using the ▲/▼ button, and press the **OK** button.
5. The selected channel is moved to the new location.

9. Setup

In this chapter you can configure the installation setting and perform channel search. Menus such as freesat tune, software update and factory reset is included in this section.

Note: Press the **EXIT** button to save the changes and return to the previous menu. Press the **MENU** button to exit the menu screen.

9.1 Freesat Tune

1. Press the **MENU** button.
2. Select ***Setup*** using the ▲/▼ button and press the **OK** button.
3. Select ***Freesat Tune*** using the ▲/▼ button and press the **OK** button.
4. Enter your region code.
5. Please note that once you perform ***Freesat Tune***, all freesat channels will be deleted. Select ***Yes*** and press the **OK** button to delete all freesat channels.
6. Select ***Search*** and press the **OK** button to search channels.
7. The channel search will start.
8. To stop the search, press the **OK** button during channel search.
9. The results will appear. Select ***Save*** and press the **OK** button.

Note: If there are no channels available, a message indicating the result will pop up.

9.2 Manual Tune

1. Press the **MENU** button.
2. Select ***Setup*** using the ▲/▼ button and press the **OK** button.
3. Select ***Manual Tune*** using the ▲/▼ button and press the **OK** button.
4. Select ***Search*** and press the **OK** button. The channel search will start.
5. To stop the search, press the **OK** button during channel search.
6. The results will appear. Select ***Save*** and press the **OK** button.

Transponder	Select ***All*** or the value in the transponder list and press the **OK** button. If the required value is not available, select ***User Define*** and enter the transponder value directly.

Network Search	Select ***Disable*** or ***Enable*** using the **OK** or ◀/▶ button.
Scrambled Type	Select ***All*** or ***FTA*** and press the **OK** button.
Channel Type	Select among ***All, TV*** and ***Radio*** and press the **OK** button.

Note: If there are no channels available, a message indicating the result will pop up.

9.3 Software Update

Software Update allows you to update the system software to maintain proper performance of the product.

1. Press the **MENU** button.
2. Select ***Setup*** using the ▲/▼ button and press the **OK** button.
3. Select ***Software Update*** using the ▲/▼ button and press the **OK** button.

Note: For more information about the software update, refer to ***11. Software Update***.

1. Automatic Update

1. Select ***Automatic Update*** and press the **OK** button.
2. When new software is detected, you can choose to download the software immediately or save for later.
3. When there is no new software to update, a popup will appear.

2. Manual Update

1. Select ***Manual Update*** and press the **OK** button.
2. Enter the values for ***Satellite, Frequency, Polarization, Symbol Rate*** and ***FEC***.
3. Select ***Search*** and press the **OK** button.
4. When new software is detected, you can choose to download the software immediately or save for later.

Note: When there is no new software to update, a popup will appear.

9.4 Factory Reset

Factory Reset enables you to restore the product to the factory default.

Warning: Please note that once you perform ***Factory Reset***, all data such as the antenna setting information, channel list and all user configured data will be deleted.

1. Press the **MENU** button.
2. Select ***Setup*** using the ▲/▼ button and press the **OK** button.
3. Select ***Factory Reset*** using the ▲/▼button and press the **OK** button.
4. Select ***Yes*** and press the **OK** button to restore all setting to factory default. To return to the previous menu, select ***No*** and press the **OK**.
5. You will be prompted to enter your password again before starting to load factory reset. Enter the password to proceed.
6. When factory reset is completed, the first installation pops up automatically and assists channel search.

Tip:	The default password is **0000**.

Note: For detailed information about the first installation, refer to ***Chapter 3. First Installation***.

10. System

10.1 Diagnostics

You can view system status information.

1. Press the **MENU** button.
2. Select ***System*** and press the **OK** button.
3. Select ***Diagnostics*** and press the **OK** button.
4. The system status information will be displayed.

10.2 Network

You can view the network information.

1. Press the **MENU** button.
2. Select ***System*** and press the **OK** button.
3. Select ***Network*** and press the **OK** button.
4. The network information will be displayed.
5. Select ***Configure Ethernet*** and press the **OK** button. Select ***Configure IP*** and press the **OK** or ◀/▶ button to select ***DHCP*** or ***Manual***. When selecting ***Manual***, you can enter the value for the network information. Select ***Apply*** and press the **OK** button to save the changes.

11. Software Update

In order to maintain proper performance of the product, it is essential to have the most up-to-date software. Visit the Humax website to check the latest news and newly released software versions (**http://www.humaxdigital.com**). It is recommended that you periodically check for the availability of software update.

11.1 OTA (Over the Air)

OTA, an abbreviation of Over–the-Air, is a standard for the transmission of software through a broadcast system. OTA is simply an alternative method for downloading software versions. However, the manufacturers reserve the right for deciding the release of the software for their products by beaming the latest software versions over the air via satellite. Note that OTA is only limited to certain geographical regions mainly due to different antennas having different footprints (area where the signal can be received). The following factors must be true for the software update via satellite to occur:

1. The equipment has the appropriate loader software.

Caution: Please note that if the normal loader software is not equipped, the product may not be updated or operate properly after software update.

2. The manufacturer decides to release the software via a designated satellite.
3. The equipment is tuned properly to the same antenna equivalent to that of the manufacturer.
4. The signal strength and quality is high. If severe weather conditions are affecting reception, for example, the software update should be postponed until signal strength and quality are favourable again.

Caution:
- Please be careful to keep the power on and the power cord plugged in during software update. If the power is off during software update, fatal damage may be caused to the product.
- Please be careful not to pull out the signal line (LNB cable) during software update. Update may be interrupted and the product may not operate.

Note:
- It may take 5~10 minutes to update software.
- Other functions will not activate while software update takes place.
- You cannot schedule programmes during software update.

1. Software update while watching a programme

When new software is detected, you can choose to download the software immediately or save for later. In case there is no software currently available, select ***Next*** and press the **OK** button to proceed to the next step.

2. Software update via USB host

Copy the software to the USB memory stick and connect the USB to the receiver. Press the **STANDBY** button and turn off the power. To power on, press the **STANDBY** button while switching on the receiver to start software update.

12. Appendix

12.1 Menu Map

 Settings	1. TV Setup 2. Language 3. Time 4. Parental Control 5. Other 6. STB Mode
 Edit Channels	1. Edit Channel List 2. Edit Favourite List
 Setup	1. Freesat Tune 2. Manual Tune 3. Software Update 4. Factory Reset
 System	1. Diagnostics 2. Network

12. Appendix

12.2 Trouble Shooting

Before contacting your local service centre, please read the tips below carefully. If the problem persists after completing the following procedure, please contact your local retailer for further instructions.

1. **No message displayed on the front panel (the product will not switch on)**
   - Check the main power cable and make sure it is plugged into a suitable power outlet.
   - Check that the mains supply is switched on.
   - Connect the power cable to a different power outlet.
2. **No picture on TV set**
   - Make sure that the product is powered on and in operation mode. (Press the **STANDBY** button)
   - Make sure that the AV cable is firmly connected to the TV.
   - Make sure that the antenna cable is properly connected to the product.
   - Make sure that the antenna setting in the menu is correct.
   - Check the brightness level of the TV.
   - Check if the channel is currently on air. Contact the broadcaster to ensure that the channel is running.
   - Press the **SOURCE** button if the product is in external input mode.
3. **Poor picture/sound quality**
   - Install the antenna in an obstacle-free place.
   - Make sure there is no mobile phone or microwave oven near the product.
   - Keep the power and the antenna cable for the satellite apart from each other.
   - Check the signal levels and adjust your antenna if the level is too low. The signal level may be affected by weather conditions.

Note: If the antenna is covered with snow or the RF is weakened by heavy rain, the condition of the sound and picture may temporarily be poor. However, the poor sound and picture quality due to weather conditions cannot be accepted as a malfunction of product.

   - Check that your dish alignment is correct.
   - Change the satellite dish for a larger one as this will increase the signal levels received.
   - Replace the LNB with a lower noise factor in cases where the noise factor is too high.
   - Replace the LNB with a new one in case it is damaged or out of order.
4. **No or poor sound**
   - Check that your AV cable is connected correctly.
   - Check the volume levels of your TV set and the product.
   - Check if the product or TV is on mute.
   - Check audio type or soundtrack option in the AV menu.
5. **Remote control does not operate.**
   - To control the product, the top end of the remote control should point directly towards the receiving part of the product.
   - Remove and reinsert the batteries in the remote control.
   - Replace the batteries in the remote control for a new set.
6. **Cannot make reservations.**
   - Check that no previous reservations are conflicting with the new reservation.

7. **No password information is given.**
   - The default password is always **0000**.
8. **Channel search does not work.**
   - Make sure that the antenna setting in the menu is correct.
9. **Cannot update new software.**
   - If there is no message displayed requesting an update, there is no software available for your product at that time.

12.3 Error Message

Error message	Possible causes	What to do
No or bad signal	The satellite dish is not pointing at the satellite.	Adjust dish alignment.
	Signal is too weak.	Increase the LNB voltage or connect a signal amplifier.
	Satellite dish is too small.	Change to a larger dish.
	Problem with LNB.	Change the LNB.
	Wrong antenna setting.	Set the antenna correctly.
The channel is scrambled or not available.	The channel has a signal, but no audio or video is provided.	Confirm whether the channel is currently on air.
	The channel has not been deleted by broadcasting company.	Remove the channel from the channel list and check for new transponder details.
	The channel is for data broadcasting.	The channel can only be viewed with the appropriate model that supports data channels.
Audio not available.	The channel has a video signal, but no audio is provided.	Press the audio button on your remote control to confirm that the channel has audio options.
Short LNB	LNB cable is short.	Replace LNB Cable.
	LNB is internally short.	Replace LNB.
	Alien substance is inserted in LNB IN Port and port may be damaged.	Remove the alien substance and contact local Service centre in case damaged has occurred.

12. Appendix

12.4 Specification

Tuner & Channel	
Input Connector	F-Type, IEC 169-24, Female
Frequency Range	950MHz to 2150MHz
Signal Level	-25 to -65dBm
LNB Power & Polarisation	• Vertical : +13.3V(+14.3V at high voltage) • Horizontal : +18.3V(+19.3V at high voltage) • Current : Max.500mA(Overload protection)
22KHz Tone	Frequency : 22 ± 4KHz Amplitude : 0.7 ± 0.2V
DiSEqC Control	Version1.0, 1.2, USALS, SCD (Single Cable Distribution)
Demodulation	QPSK, 8PSK
Input Symbol Rate	• DVB-S : 2-45MS/s • DBV-S2 : 10-30MS/s(QPSK/8PSK)
FEC Mode	DVB-S: Auto,1/2,2/3,3/4,5/6,7/8 DVB-S2: Auto,1/2,3/5,2/3,4/5,5/6,8/9,9/10 (QPSK) Auto,3/5,2/3,3/4,5/6,8/9,9/10 (8PSK)
MPEG Transport Stream A/V Decoding	
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification
Profile Level	MPEG-2 MP@ML, MPEG4 HD HP@L4, PAL
Input Rate	15MB/s Max
Video Format	4:3, 16:9
Video Resolution	1080i, 720p, 576p, 576i
Audio Decoding	MPEG-1 Layer II, Dolby-AC3 Audio
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Memory	
Flash Memory	16MB
RAM	256MB
EEPROM	8KB

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Audio/Video	
Video	TV-SCART(FBAS,S-Video,RGB) VCR-SCART(FBAS, S-Video) RCA-Typ(FBAS), YPbPr(RCA), HDMI/HDCP
Audio	TV-SCART, VCR-SCART, Audio L/R, S/PDIF(Digital Audio Output)
Data Port	
USB	USB 1.1/2.0 Host (5 V 100mA Max.)
Power Supply	
Input Voltage	90-250V a.c., 50/60Hz
Type	SMPS
Power Consumption	Max. 30W
Protection	Separate internal fuse. The input should be protected against lightning.
Physical Specification	
Size	280mm × 200mm × 45mm
Weight (Net)	1.5kg
Operating Temperature	0 ºC to +45 ºC
Storage Temperature	-10 ºC to +70 ºC

12. Appendix

12.5 Glossary

1. **DiSEqC (Digital Satellite Equipment Control)**
   A DiSEqC compatible receiver relies on a switching box which detects the 22kHz tone pulsing rapidly on and off. In this way, a specially designed receiver can control numerous LNBs through a DiSEqC switching box.
2. **Dolby Digital**
   An encoding system that digitally compresses up to 5.1 discrete channels of audio (left front, centre, right front, left surround, right surround) into a single Bitstream. A low frequency effect (LFE) channel is included providing the sound needed for special effects.
3. **DVB (Digital Video Broadcasting)**
   Set of standards that define digital broadcasts using satellite, cable or terrestrial systems.
4. **EPG (Electronic Programme Guide)**
   An electronic equivalent to a printed television listings magazine; it is an application used with digital set-top boxes and digital television sets to list current and scheduled programs that are or will be available on each channel, including a short summary or commentary for each program. The information supplied in the EPG is sent and updated by the channel broadcaster.
5. **FEC (Forward Error Correction)**
   A technique for error control of data transmission.
6. **Frequency**
   The property of a signal measured in cycles per second (=Hz).
7. **FTA (Free- To-Air)**
   An unscrambled broadcaster allowing customers to view channels or services without paying any subscription.
8. **Hi-Fi (High Fidelity)**
   The characteristics of audio devices that can play back all the audio frequencies a person can detect, which is the range of 16Hz~20KHz. Sometimes it is used to indicate good quality of audio devices such as stereo tape recorders.
9. **LNB (Low Noise Block)**
   A device that is mounted on an arm facing your satellite dish, focusing on satellite signals. A LNB converts signals received from satellite to a lower frequency and sends them to a satellite receiver via coaxial cable.
10. **OSD (On Screen Display)**
    OSD displays the basic information necessary for the users to configure monitor or TV settings. OSD information may include brightness, contrast, tuning, RGB adjustment, and screen size and position.
11. **OTA (Over the Air)**
    A standard for the transmission of software for equipment, through a broadcast system. Manufacturers reserve the right for deciding the release of the software for their products.
12. **Polarisation**
    The direction of the electrical and magnetic fields of a signal. Satellites use both vertical and horizontal polarisation so a frequency can be used twice.

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13. PID (Packet Identifier)
A set of numbers identifying stream packets contained within a single data stream.

14. QPSK (Quaternary Phase Shift Keying)
Digital modulation technique in which the carrier phase can have one of four possible values.

15. RF (Radio Frequency)
Television signals are modulated onto RF signals and are then demodulated by your television's or STB's tuner.

16. SCART
A 21-pin connector standard to connect two pieces of Audio-Visual equipment such as a TV and a VCR. Each device will have a 21-pin female connection; a cable with male connection at both ends is used for connecting the devices.

17. S/PDIF (Sony/Philips Digital Interface format)
A standard format for the transfer of digital audio signals. It allows the transfer of digital audio between two devices without any conversion to and from analogue, which could degrade the signal quality.

18. S-Video (Super-Video)
Sometimes referred to as Y/C video; a technology for transmitting video signals via a cable. It is a video signal transmission in which the luminance (brightness) and the chrominance (colour) signals are transmitted separately to achieve superior picture clarity.

19. Transponder
A satellite is divided up in parts called transponders. A transponder is one distribution section of the satellite. Each transponder can be used for distribution of several channels or services.

12.6 Service and Support

Information concerning troubleshooting, software upgrade and product support is provided in the following websites and call centres. Should your product require warranty service, please contact your local retailer to obtain the appropriate authorization.

UK	
Tel:	0844 669 8800
Opening Hours:	Mon-Fri: 09:00-17:30 Excluding Bank holidays Calls charged at local rate from a BT landline. Other operators may vary.
E-mail:	freesat@humax-digital.co.uk
Website:	www.freesat.com / www.humax-digital.co.uk
Language:	English

www.humaxdigital.com

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